



PREVENT STORM WATER CONTAMINATION

Best Management Practices for

Section AA - Fabricated Metal Products Industry



SIC Codes: 3411-3499, 3911-3915

General Information:

1) Federal Storm Water regulations require the City to reduce the quantity of pollutants that enter our storm drains, rivers, and washes from rain water and other sources. 2) Water from any source that contains contaminants is prohibited from entering the storm drain system which includes streets, pipes, catch basins (street grates), ditches, washes, parks, and rivers. 3) Commercial and industrial wash or wastewater is prohibited from entering the storm drain system, street or any other outside area. 4) All washing activities that use soap, solvents, degreasers or any other chemical must be hauled to a landfill or discharged into the sanitary sewer through a sand/oil interceptor or approved pretreatment device. 5) City Code 32C requires any person or business that has a "potential" to pollute storm water, to develop and implement a Storm Water Management Plan (SWMP). 6) The BMPs listed here are not inclusive, and must be tailored for your facility. See 40CFR122 Section 6.AA.3 October 30, 2000 for additional required BMPs.

Metal fabricating areas

- ◆ Sweep frequently to collect steel ingots, fines and scrap.
- ◆ Use a vacuum system to collect dust to avoid accumulation on roof-tops and ground.
- ◆ Maintain floors in a clean and dry condition.
- ◆ Remove waste materials and dispose of or recycle it regularly.
- ◆ Sweep fabrication areas.
- ◆ Train employees on good housekeeping measures.

Storage areas for raw metal

- ◆ Check raw metals for corrosion.
- ◆ Keep storage areas neat and orderly.
- ◆ Cover exposed materials with a roof or tarp.
- ◆ Place metal on pallets or use berming or diking to prevent run-on during wet weather.

Receiving, loading and unloading areas

- ◆ Clean up spills immediately.
- ◆ Check for leaking or damaged drums or packages and remedy the problem.
- ◆ Load and unload materials under a covered area when possible.
- ◆ Direct roof drain spouts away from loading and unloading areas to grassy or retention areas.
- ◆ Areas should be enclosed if feasible with berms, curbing or diking to prevent run-on.

Storage of heavy equipment

- ◆ Clean equipment prior to storage or store under cover.
- ◆ Vehicles should be stored indoors whenever possible.
- ◆ If vehicles are stored outdoors, porous materials should be used on the ground to prevent the equipment from making ditches and cause increased sedimentation and run-off.
- ◆ Divert uncontaminated drainage to grassy swales, filter strips, retention ponds or holding tanks.

Metal working fluid areas

- ◆ Control of working fluids (which are often toxic) throughout the process.
- ◆ Store used metal working fluids (with fine metal dust) indoors or under cover.
- ◆ Use tight sealing lids on all fluid containers.

- ◆ Use straw, clay absorbent, sawdust or synthetic absorbent to confine or contain spills.
- ◆ Establish recycling programs for used fluids when possible.

Unprotected liquid storage tanks

- ◆ Store non-gaseous tanks indoors if possible or cover the tanks with a roof or tarp.
- ◆ Berm outdoor storage tanks if unable to move indoors.
- ◆ Clean up spills immediately, this will reduce buildup of contaminants.
- ◆ Install grass filters to capture spills.
- ◆ Keep areas around tanks clean from trash and litter.
- ◆ Check piping, valves and other related equipment on a regular basis.

Chemical cleaners and rinse water

- ◆ Use and dispose of cleaning chemicals properly. This will reduce the amount of contaminated chemicals that are exposed to rain.
- ◆ Reuse or recycle chemicals when possible.
- ◆ Use drip pans and other devices to collect spills or solvents and other liquid cleaners.
- ◆ Recycle waste water.
- ◆ Store recyclable waste indoors or in covered containers.
- ◆ Substitute nontoxic cleaning agents when possible.

Raw steel collection areas

- ◆ Keep the metal collection area clean.
- ◆ Collect scrap metals, fines and iron dust and store under cover or inside until picked-up.
- ◆ Recycle scrap metals.

Paints and painting equipment

- ◆ Use tarps, drip pans and other devices to contain and collect spills.
- ◆ Conduct painting and sanding operations indoors when possible.
- ◆ Avoid painting and sandblasting operations outdoors during windy weather.
- ◆ If painting or sandblasting outdoors, enclose the areas with tarps or plastic sheeting.
- ◆ Use water-based paints when possible to decrease pollution.
- ◆ Sweep up sandblasting materials regularly and recycle if possible.
- ◆ Use a berm or curb to reduce run-on.

Vehicle and equipment maintenance areas

- ◆ Changing fluids and parts should be done indoors.
- ◆ Berm area or use other containment devices to control spills.
- ◆ If work is done outdoors use drip pans, large plastic sheeting, canvas or other similar controls under the vehicle.
- ◆ Recycle fluids if possible or discard them properly.

Hazardous waste storage areas

- ◆ All hazardous waste must be stored in sealed drums.
- ◆ Establish a centralized location for drum storage.
- ◆ Berm enclosed storage areas.
- ◆ Label materials and drums clearly. Consider labeling areas for compatible wastes.
- ◆ Check for corrosive activity and leaking.
- ◆ Properly dispose of outdated materials.
- ◆ Dike or use grass swales, ditches or other containment to prevent run-on or runoff in case of spills.
- ◆ Post notices prohibiting dumping of materials into storm drains.
- ◆ Store containers, drums and bags away from direct traffic routes.
- ◆ Do not stack containers in such a way as to cause leaks or damage to the containers.
- ◆ Use pallets to store containers when possible.
- ◆ Store materials with adequate space for traffic without disturbing drums.
- ◆ Maintain a low inventory level of chemicals based on need.

Transporting chemicals to storage areas

- ◆ Forklift operators should be trained to avoid puncturing drums.
- ◆ Store drums as close to operational building as possible.
- ◆ Label all drums with proper warning and handling instructions.

Finished products (galvanized) storage

- ◆ Finished products should be stored in such a way as to minimize contact with rain.
- ◆ Use wooden pallets or berm or curb the area to prevent run-on.
- ◆ Store on a concrete pad or other impervious surface.

Wooden pallets and empty drums

- ◆ Clean contaminated wooden pallets.
- ◆ Cover clean empty drums.
- ◆ Cover contaminated wooden pallets.
- ◆ Store drums and pallets indoors or under a cover in a bermed area.

Retention ponds (lagoon)

- ◆ Provide routine maintenance such as trimming grass.
- ◆ Remove excess sludge and trash periodically.
- ◆ Aerate periodically if water is always present. Water is not allowed to stand for more than 36 hours because of mosquito breeding.

- ◆ Do not wash contaminants into the pond.
- ◆ Monitor dry wells (often found in retention areas); rain should soak in within 24 hours after an event, if not have the dry well serviced immediately.

Training

- ◆ Train personnel on proper chemical use, storage, cleanup and your waste disposal practices.
- ◆ Develop, implement and train employees at least annually on the Storm Water Management Plan.

Inspections

- ◆ Conduct quarterly storm water BMP inspections and within 24 hours after a rain event.
- ◆ Inspect the specific areas listed below in addition to typical sites:
- ◆ Raw metal storage.
- ◆ Spent solvent and chemical storage.
- ◆ Outdoor painting areas.
- ◆ Material and chemical storage areas.
- ◆ Recycling areas.
- ◆ Loading and unloading areas.
- ◆ Vehicle fueling and maintenance areas.
- ◆ Complete the required BMP checklist during each inspection.
- ◆ Review BMPs after each inspection and modify them within fourteen (14) days and the SWPPP or SWMP as needed.
- ◆ Maintain all storm water documentation for at least three (3) years.

Storm Water Management Plan (SWMP) or Storm Water Pollution Prevention Plan (SWPPP)

- ◆ Develop and implement a SWMP or SWPPP.
- ◆ All Storm Water Plans (SWMP or SWPPP) must be submitted to the city for approval.
- ◆ All regulated facilities in this category must submit a Notice of Intent (NOI) to ADEQ.

If a spill occurs:

- ◆ **Stop the source of the spill immediately.**
- ◆ **Contain the liquid until cleanup is complete.**
- ◆ **Deploy oil containment booms if the spill may reach water or a storm drain.**
- ◆ **Cover the spill with absorbent material.**
- ◆ **Keep the area well ventilated.**
- ◆ **Dispose of clean-up materials properly.**
- ◆ **Do not use an emulsifier or dispersing agent.**
- ◆ **Do not wash anything down to the retention pond, street or storm drain.**

The BMPs found on this page are paraphrased from Federal Storm Water documents 40CFR122, 1995 or later

Storm Water



Management
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City of Phoenix

STREET TRANSPORTATION DEPARTMENT
STORM WATER MANAGEMENT SECTION